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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/038,214	01/03/2002	Mukund R. Patel	16209.84	8610

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EXAMINER

SHOSHO, CALLIE E

ART UNIT	PAPER NUMBER
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1714

DATE MAILED: 08/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/038,214

Applicant(s)

PATEL ET AL.

Examiner

Callie E. Shosho

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 1-7 and 10-16 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8 is/are allowed.
- 6) ☒ Claim(s) 9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4/28/03. 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-7, drawn to method of labeling an article, classified in class 156, subclass 230.
 - II. Claims 8-9, drawn to solvent-based ink, classified in class 523, subclass 160.
 - III. Claims 10-16, drawn to heat transfer labeling system, classified in class 428, subclass 40.1.
2. The inventions are distinct, each from the other because:
 - (a) Inventions II and I are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case, the product as claimed can be used in a materially different process of using that product such as method of producing an image wherein the ink is directly printed onto substrate such as paper using ink jet printer.
 - (b) Inventions III and I are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product

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as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case, the process for using the product as claimed can be practiced with another materially different product such as heat transfer label comprising support portion, release layer, skim layer, protective layer, ink layer, and adhesive layer or the product as claimed can be used in a materially different process of using that product such as thermal transfer recording process wherein a thermal transfer recording sheet comprising support and transfer portion is heated by thermal head to transfer the transfer portion to image receiving recording sheet.

(c) Inventions III and II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the combination, i.e. heat transfer labeling system, only generically requires single or multiple color design, i.e. ink, with no requirements regarding type of ink used to make the design including the particulars of the combination, i.e. the type of polymer, crosslinker, catalyst, and solvent used in the ink or design. The subcombination has separate utility such as ink jet ink or coating for image receiving layer.

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3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification and/or their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Mark Montague on 12/20/02 a provisional election was made with traverse to prosecute the invention of Group II, claims 8 and 9. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-7 and 10-16 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Geurtsen et al. (U.S. 6,537,651) in view of Benitez (U.S. 4,321,185).

Geurtsen et al. disclose solvent-based ink composition used for labeling material wherein the ink comprises polyester resin, pigment, n-propyl acetate, and methyl ethyl ketone (col.7, lines 60-65, col.8, lines 4-7, and col.9, lines 15-45).

The difference between Geurtsen et al. and the present claimed invention is the requirement in the claims of glass transition temperature of the polyester.

Benitez, which is drawn to ink composition, disclose the use of polyester which has glass transition temperature of greater than 0 °C in to provide non-blocking properties to the ink (col.1, lines 50-52 and 56-57).

Geurtsen et al. disclose that the ink is used as labeling material and bonds when heated to substrate but there is no disclosure of the temperature or time of the heating. However, given that Geurtsen et al. in view of Benitez disclose ink identical to that presently claimed, it is clear that upon drying and exposure to temperatures of 375 to 400 °F for less than one minute, the ink would intrinsically develop outstanding adhesion to substrate.

In light of the disclosure of Benitez, it therefore would have been obvious to one of ordinary skill in the art to use polyester with glass transition temperature greater than 0 °C in the ink of Geurtsen et al. in order to produce ink with non-blocking properties, and thereby arrive at the claimed invention.

Allowable Subject Matter

9. Claim 8 is allowable over the "closest" prior art for the following reasons.

Xiao (U.S. 6,322,620) disclose ink comprising epoxy resin, methoxymethylmelamine, toluene sulfonic acid catalyst, and methyl ethyl ketone. However, there is no disclosure or suggestion of phenoxy resin, toluene, or highly monomer methyl-butyl coetherified melamine formaldehyde as required in the present claims.

Krivopal (U.S. 5,989,700) discloses ink comprises pigment, polyhydroxyether, epoxy resin, methylated melamine-formaldehyde resin, and methyl ethyl ketone. However, there is no

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disclosure or suggestion of toluene or highly monomer methyl-butyl coetherified melamine formaldehyde as required in the present claims.

Salensky et al. (U.S. 4,976,813) disclose solder mask comprising phenoxy resin, epoxy resin, melamine-formaldehyde, and acid catalyst. However, there is no disclosure or suggestion of methyl ethyl ketone, toluene or highly monomer methyl-butyl coetherified melamine formaldehyde as required in the present claims and further, Salensky et al. is drawn to solder mask not ink as required in the present claims.

Mayer et al. (U.S. 4,511,682) disclose coating composition comprising epoxy resin, phenoxy resin, methyl ethyl ketone, and hydrocarbon solvent. However, there is no disclosure or suggestion of catalyst or highly monomer methyl-butyl coetherified melamine formaldehyde as required in the present claims

Laprade et al. (U.S. 6,099,944) disclose heat transfer label with ink design wherein the ink comprises phenoxy resin, methyl ethyl ketone, and toluene. However, there is no disclosure or suggestion of epoxy resin, catalyst, or highly monomer methyl-butyl coetherified melamine formaldehyde as required in the present claims.

Laprade (U.S. 2003/0134110) discloses heat transfer label with ink layer wherein the ink comprises phenoxy resin, epoxy resin, melamine-formaldehyde, amine blocked sulfonic acid catalyst, methyl ethyl ketone, and toluene. However, given the effective filing date of the reference, Laprade is not applicable against the present claims under any subsection of 35 USC 102.

Geurtsen et al. (U.S. 6,537,651) disclose ink comprising phenoxy resin, methylated melamine-formaldehyde, catalyst, methyl ethyl ketone, and toluene. However, there is no

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disclosure or suggestion of epoxy resin or highly monomer methyl-butyl coetherified melamine formaldehyde as required in the present claims.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Torikoshi et al. (U.S. 5,968,689) disclose composition comprising polyester, methyl ethyl ketone, n-propyl acetate, and pigment, however, there is no disclosure of the glass transition temperature of the polyester.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 703-305-0208. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 703-306-2777. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Callie E. Shosho
Primary Examiner
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CS
8/23/03